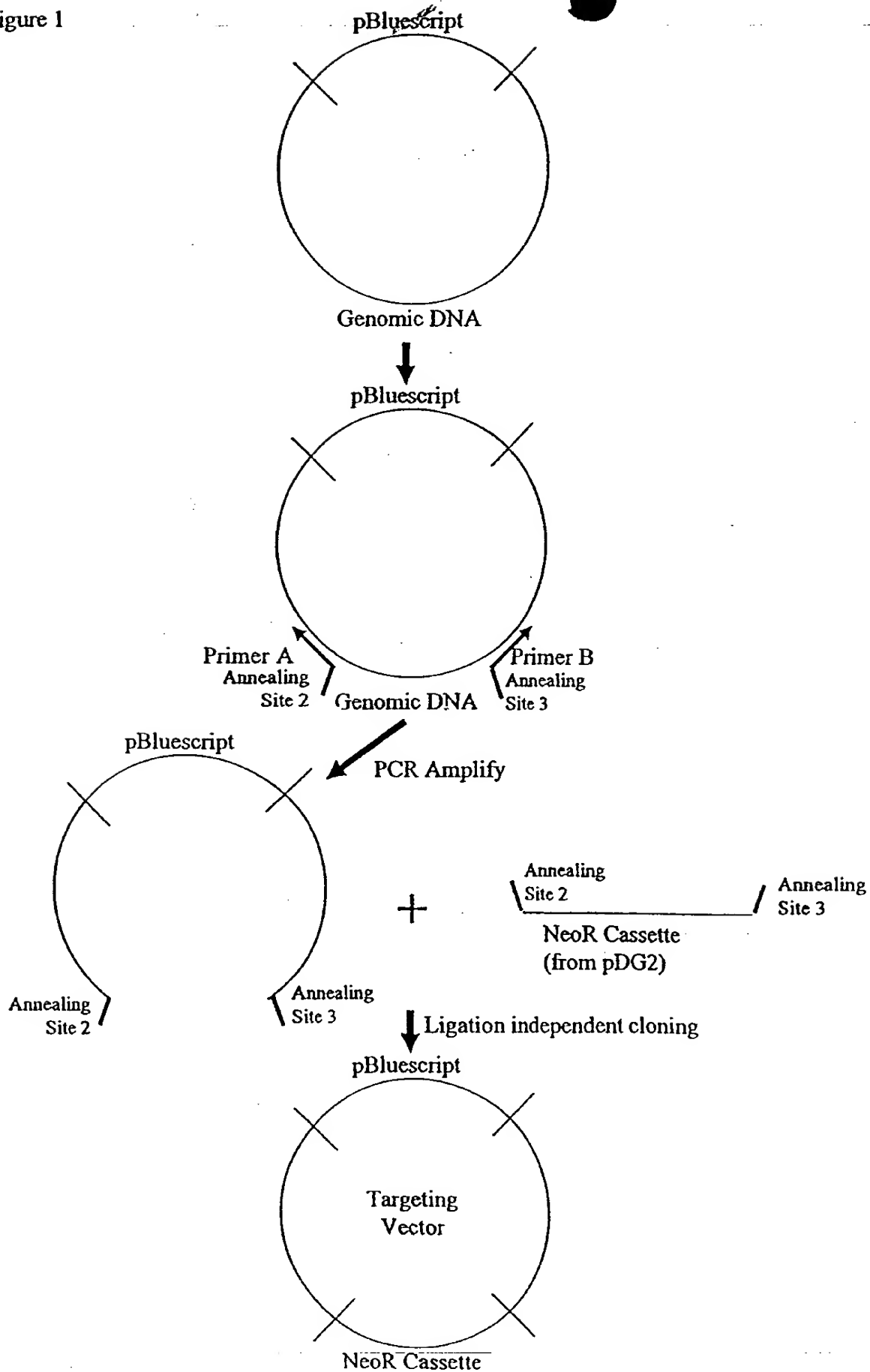


Figure 1



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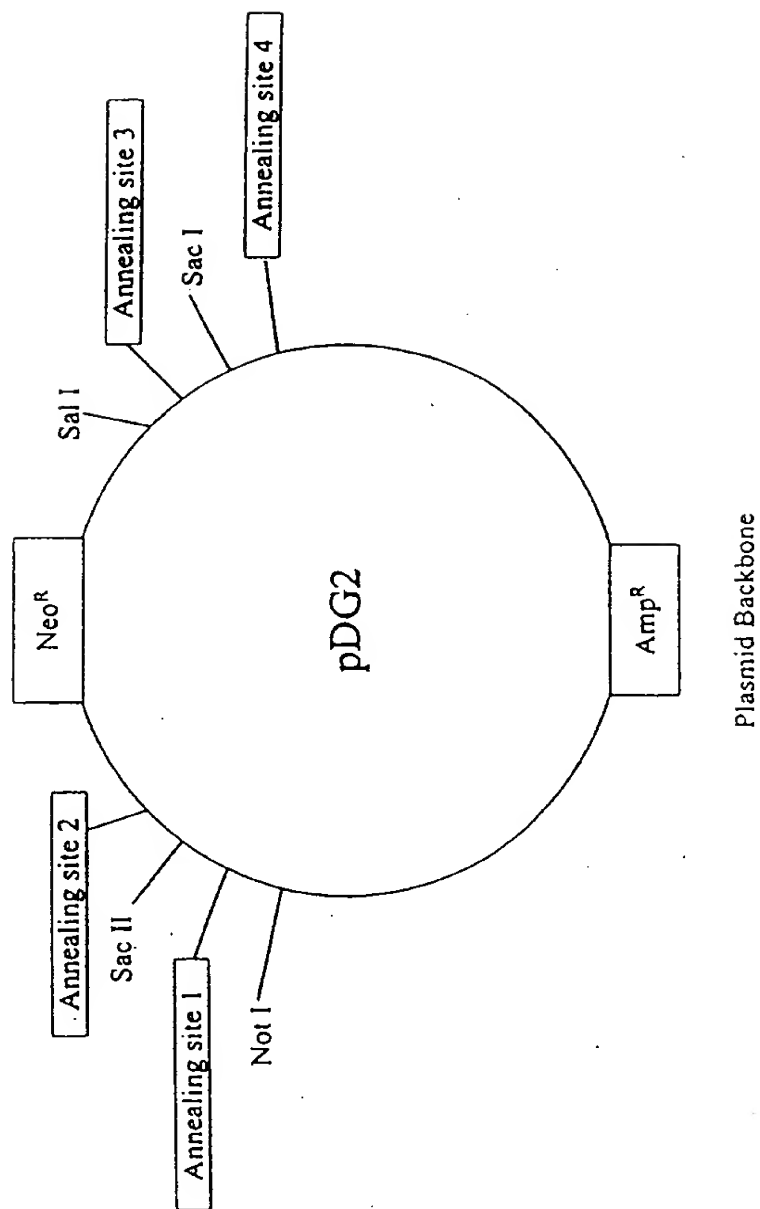


FIGURE 2A

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FOI b7E b7C b7D b7E b7F b7G b7H b7I b7J b7K b7L b7M b7N b7O b7P b7Q b7R b7S b7T b7U b7V b7W b7X b7Y b7Z

FIGURE 2B

pDG2:

GTAACTACGTCAAGTGGCACTTTTCGGGGAATGTGCGCGGAACCCCTATTGTTTATTTTCTAAATACATTCAAATA
TGTATCCGCTCATGAGACAATAACCTGATAAATGCTTCAATAATATTGAAAAGGAAGAGTATGAGTATTCAACATTTT
CGTGTGCGCCCTTATTTCCCTTTTTTGCGGCATTTTGCTTCTGTTTTTGCTCACCAGAAACGCTGGTGAAGTAAAGA
TGCTGAAGATCAGTTGGGTGCACGAGTGGGTACATCGAACTGGATCTCAACAGCGGTAAAGATCCTTGAGAGTTTTCGCC
CCGAAGAACGTTCTCCAATGATGAGCACTTTAAAGTTCTGCTATGTGGCGCGGTATTATCCCGTGTGACGCCGGGCAA
GAGCAACTCGGTGCGCGCATACACTATTCTCAGAATGACTTGGTTGAGTACTCACCAGTCAAGAAAGCATCTTACGGA
TGGCATGACAGTAAGAGAATTATGCAGTGTGCCATAACCATGAGTGATAACACTGCGGCCAACTTACTTCTGACAACGA
TCGGAGGACCGAAGGAGCTAACCGCTTTTTTGACAACATGGGGGATCATGTAACCTGCGCTTGATCGTTGGGAACCGGAG
CTGAATGAAGCCATACCAAACGACGAGCGTGACACCAAGTGCCTGTAGCAATGGCAACAACGTTGGCCAAACCTATTAC
TGGCGAACTACTTACTCTAGCTTCCCGGCAACAATTAATAGACTGGATGGAGCGGATAAAGTTGCAGGACCACTTCTGC
GCTCGGCCCTTCCGGCTGGCTGGTTTATTGCTGATAAATCTGGAGCGGTGAGCGTGGGTCTCGCGGTATCATTGCAGCA
CTGGGGCCAGATGGTAAGCCCTCCGATCGTAGTTATCTACAGACGGGGAGTCAGGCAACTATGGATGAACGGAATG
ACAGATCGCTGAGATAGGTGCCTCACTGATTAAGCATTGGTAACGTGACACCAAGTTTACTCATATATACTTTAGATTG
ATTTACCCCGGTTGATAATCAGAAAAGCCCAAAAACAGGAAGATTGTATAAGCAAAATTTAAATTGTAACGTTAATA
TTTTGTTAAATTTGCGCTTAAATTTTTGTTAAATCAGCTCATTTTTAACCAATAGGCCGAAATCGGCAAAATCCCTTAT
AAATCAAAAGAAATAGCCCGAGATAGGGTTGAGTGTGTTCCAGTTTGGAAACAGAGTCCACTATTAAGAACGTTGAGTC
CAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCAAAATCAAGTTTTTGGGGT
CGAGGTGCGGTAAAGCACTAAATCGGAACCTAAAGGGAGCCCCGATTAGAGCTTGACGGGGAAAGCGAACGTTGGCGA
GAAAGGAAGGGAAGAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCGGTACGCTGCGCGTAACCAACACA
CCCGCGCGCTTAATGCGCGCTACAGGGCGGTAAAAGGATCTAGGTGAAGATCCTTTTGATAATCTCATGACCAAAA
TCCCTTAACGTGAGTTTTGCTTCCACTGAGCGTCAAGCCCGTAGAAAAGATCAAGGATCTCTTGAGATCCTTTTTTT
CTGCGCGTAATCTGCTGCTTCAAAACAAAAAACCCCGCTACCAGCGGTGGTTGTTTGCCGGATCAAGAGCTACCAAC
TCTTTTTCCGAAGGTAACCTGCTCAGCAGAGCGCAGATACCAAAATCTGTTCTTAGTGTAGCCGTAGTTAGGCCACC
ACTTCAAGAACTCTGTAGCACCGCTACATACCTCGCTCTGCTAATCTCTGTTACCAGTGGCTGCTGCGAGTGGCGATAAG
TCGTGTCTTACCGGGTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTGGGGCTGAACGGGGGGTTCGTGCAC
ACAGCCAGCTTGGAGCGAACGCTACACCGAATGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCG
AAGGGAGAAAGGCGGACAGGTATCCGTAAGCGGCGAGGTGCGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGGAAC
GCCTGGTATCTTTATAGTCTCTGTCGGGTTTCCGCCCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGCG
GAGCCTATGGAAAAACCGCAGCAACGCGGCTTTTACGGTTCTCTGGCCTTTTGCTCAGATGTAATGTG
AGTTAGCTCACTCATTAGGCACCCAGGCTTTACACTTTATGCTTCCGGCTCGTATGTTGTGTGAATTGTGAGCGGAT
ACAATTTACACAGGAAACAGCTATGACCATGATTACGCCAAGCTACGTAATACGACTCACTAGGCGGCCGCTTTAAAC
AATGTGCTCCTCTTGGCTTGTCTCCGCGGGCCAGCCAGACAAGAACCAAGTTGACGTCAGCTTCCCGGGACGCGTGCT
AGCGGCGCGCGAATCTCTGAGGATTGAGGGGCCCTGACGGTCAATTCTACCGGGTAGGGGAGGCGCTTTTCCCAAGG
CAGTCTGGAGCATGCGCTTTAGCAGCCCGCTGGCACTTGGCGCTACACAAGTGGCCCTCTGCGCTCGCACATCTCCACA
TCCACCGGTAGCGCCAAACCGGCTCGTTCTTGGTGGCCCTTCCGCGCCCTCTACTCTCCCTTACTAGTCAGGATTTT
CCCCCGCCCCCGCAGCTCGCGTGTGACGAGCTGACAAATGGAAGTAGCAGTCTCACTAGTCTCGTGAGATGGACAG
CACCGCTGAGCAATGGAAGCGGTAGGCTTTGGGGCAGCGGCCAATAGCAGCTTGTCTCTTCTGCTTCTGGGCTCAGA
GGCTGGGAAGGGGTGGGTCCGGGGCGGGCTCAGGGGCGGGCTCAGGGGCGGGCGGGCGGAGGCTCTCCGAGGCCC
GGCATTCTCGCAGCTTCAAAAGCGCAGTCTGCGCGCTGTTCTCTCTCTCATCTCCGGGCTTTGACCTGACG
CAATATGGGATCGCCATTGAACAAGATGGATTGACGACGAGTTCTCGGCGCTTGGGTGGAGAGGCTATTGCGCTATG
ACTGGGCACAACAGACAATCGGCTGCTCTGATGCCCGCTGTTCCGGCTGTGACGCGAGGGGCGCCCGGTTCTTTTGT
AAGACCGACCTGTCCGGTGCCTGAATGAAGTGCAGGACGAGGCGCGGCTATCGTGGCTGGCCACGACGGGCGTTCC
TTGGCGAGCTGTGCTCGACGTTGTCACTGAAGCGGAAGGACTGGCTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCC
TGTCTCTCACCTTGTCTCTGCGGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCT
ACCTGCCCATTCGACCACCAAGCGAAACATCGCATCGAGCGAGCAGTACTCGGATGGAAGCCGGTCTTGTCTGATCAGGA
TGATCTGGACGAAGAGCATCAGGGGCTCGGCCAGCCGAATGTTCCGCAAGCTCAAGGCGCGCATGCCCGACGGCGATG
ATCTCGTGTGACCCATGCGCATGCTGCTTGGCGAATCATGGTGAAAAATGGCCGCTTTTCTGATTCTCATGACTGT
GGCCGGCTGGGTGTTGGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGGAATG
GGCTGACCGCTTCTCTGCTTTACGGTATCGCGCTCCCGATTGCGAGCGCATCGCTTCTATCGCTTCTTGACGAGT
TCTTCTGAGGGGATCGATCCGTCTGTAAAGTCTGCAAGAAATGATGATCTATTAAACAATAAAGATGTCCACTAAATGG
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TTGGATATCATAATTTAAACAAGCAAAACCAAAATTAAGGGCCAGCTCATTCTCCCACTCATGATCTATAGATCTATAGA
TCTCTCGTGGGATCATTGTTTTCTCTTGATTCCCACTTTGTGGTTCTAAGTACTGTGGTTTCAAATGTGTCAGTTTCA
TAGCCTGAAGAACGAGATCAGCAGCTCTGTTCCACATACACTTCAATCTCAGTATTGTTTGGCAAGTTCTAATCCAT
CAGAAGCTGACTCTAGATCTGGATCCGGCCAGCTAGGCCGTGACCTCGAGTGATCAGGTACCAAGGCTCTCGCTCTGT
TCCGTTGAGCTCGACGACACAGGACACGCAAAATTAATTAAGGCCGCGCTACCTCTAGTCAAGGCTTAAGTGAGTCTG
TATTACGAGTGGCGCTGTTTTACACGTCGTGACTGGGAAAAACCTGGCGTTTACCCTAATTAATCGCTTGCAGCACA
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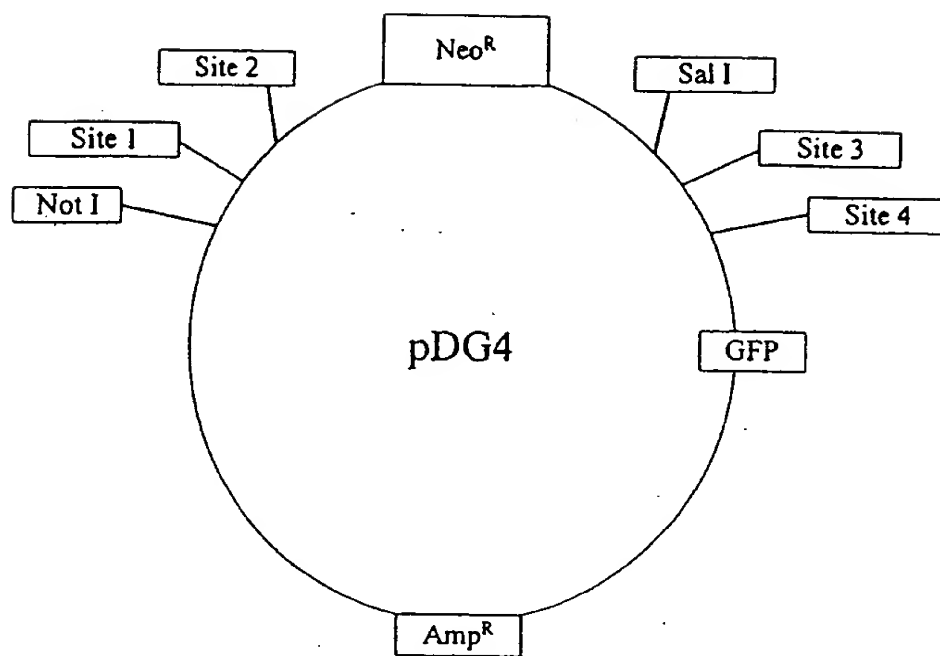


FIGURE 3A

GTTAAATAGTAATCAATTACGGGGTCATTAGTTTCATAGCCCATATATCGAGTTCGCGGTACATAAATCTACGGTAAATGG
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 CTTTCCAATGACGTCATATGGGTGGAGTATTTACGGTAACTGCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGT
 ACGCCCCCTATTGACGTCATGACGGAAATGGCCCCCTGGCATTAAGCCCGATACATGACCTTATGGGACTTTCTCTAC
 TTGGCAGTACATCTACGTAATAGTCATCGCTATTACCATGGTGATGCGGTTTGGCAGTACATCAATGGGCGTGGATAGC
 GGGTTTGACTACACGGGGATTTCCAAGTCTCCACCCCAATTGACGTCATATGGGAGTTTGTTTTGGCACCAAAATCAACGGGAC
 TTTCCAAAATGTCGTAACAACTCCGCCCCATTGACGCAAAATGGGCGGTAGGCGTGTACGGTGGGAGGCTCTATAAAGCAG
 AGCTGGTTTAGTGAAACCGTCAGATCCGCTAGCGCTACCGGTCGCCACCATGGTGAGCAAGGGCGAGGAGCTGTTACCGG
 GGTGGTGCCCATCTCGTTCGAGCTGGACGGCGACGTAACCGGCCAACAGTTCAGCGGTGTCGCGCGACGGCGAGGCGGATG
 CCACCTACGGCGAAGCTGACCTGAACTTCATCTGACCCACCGGCAAGCTGCCGTGCCCTGGCCACCGCTGACCAACC
 CTGACCTACGGCGTGCAGTGCTTACGCGCGTACCCGACCATAGAGCAGCAGCACTTCTCAAGTCCGCCATGCCCCGA
 AGGCTACGTCAGGAGCGCACCATCTTCTTCAAGGACGACGGCACTACAAGACCCGCGCGAGGTGAAGTTCGAGGGCG
 ACACCTCGGTGAACCGCATCGAGCTGAAGGGCATCGACTTCAAGGAGGACGGCAACATCTGGGGCACAAGCTGGAGTAC
 AACTACAACAGGCCAACAGCTCTATATCATGGCCGACAAGCAGAAGAACGGCATCAAGGTGAACTTCAAGATCCGCCACAA
 CATCGAGGACGGCAGCGTGCAGCTCGCCGACCACTACCAGCAGAACACCCCACTCGGCGAGCGCCCGTGTCTGTGCGCCG
 ACAACCTCATCTGAGGACCCGAGTCCGCCCTGAGCAAGAGCCCAACGAGGAGCGGATCATAGTCTCTGCTGGAGTTTC
 GTGACCGCGACCGGGATCACTCTCGGCATGGACGAGCTGTACAAGTCCGGACTCAGATCCACCGGATCTAGATAACTGAT
 CATAATCAGCCATACCACTTTGTAGAGGTTTACTTGTCTTAAAAAACCCTCCACACCTCCCCCTGAACCTGAAACATA
 AAATGAATGCAATTGTTGTTGTTAACTTGTATTATGCGCTTATAATGGTTACAATAAAGCAATAGCATCACAATTTTC
 ACAAATAAAGCATTTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAACTCATATGTATCTTAACCGGAACCTACGTCA
 GGTGGCACTTTTCCGGGAAATGTGCGCGCAACCCCTATTGTTTATTTTCTAAATGATCAATATGATCTCGCTCAT
 GAGACAATAACCTGATAAATGCTTCCAATAATTAAGAAAGGAGATGATAGTATTCAACATTTCCGTGTGCGCCTTA
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 TTGGGTGCACGAGTGGGTTACATCGAACTGGATCTCAACAGCGGTAGATCCTTGAGAGTTTTCGCCCCGAAGAACGTTT
 TCCAATGATGAGCACTTTTAAAGTTCTGCTATGTGGCGCGTATTATCCGTGTTGACGCGCGGCAAGAGCAACTCGGTC
 GCCGCATACACTATTCTCAGAATGACTTGGTTGAGTACTCACCAGTCACAGAAAGCATCTTACGGATGGCATGACAGTA
 AGAGAATTAATGAGTGTGCTGCCATAACCATGAGTGATACTGCGGCCCACTTACTTCTGACAACCATCGGAGGACGAA
 GGAGCTTAACCGCTTTTTTGCACAACATGGGGGATCATGTAAGTCTCGCTTGTATGTTGGGAACCGGAGCTGAATGAAGCCA
 TACCAAAACGACGAGCGTGACACCAGATGCTGTAGCAATGGCAACAACGTTGCGCAACTATTAAGTGGCGAACTACTT
 ACTCTAGCTTCCCGGCAACAATTAATAGACTGGATGGAGGCGGATAAAGTTGACGAGCACTTCTGCGCTCGGCCCTTCC
 GGCTGGCTGGTTTTATTGCTGATAAATCTGGAGCCGGTGAGCGTGGGTCTCGCGGTATCATTTGCAGCAGTGGGGCCAGATG
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 GATAATCAGAAAAGCCCCAAAACAGGAAGATTGTATAAGCAAATATTTAAATTGTAAACGTTAATAATTTGTTAAATTT
 CGCGTTAAATTTTTGTTAAATCAGCTCATTTTTTAACCAATAGGCGGAAATCGGCAAAATCCCTTATAAATCAAAGAAAT
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 GGACAGGTATCCGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGAAACGCGCTGGTATCTTT
 ATAGTCTGTGCGGTTTTCGCCACCTCTGACTTGAGCGTCGATTTTGTGATGCTCTGTCAGGGGGGCGGAGCTATGGA
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 ATTAGGACCCCAAGGCTTTACACTTTATGTTCTCCGCTCGTATGTTGTGTTGGAATTGTGAGCGGATAACAATTTCAACA
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 ATTCTGACAGGATTCGAGGGCCCTGCAAGTCAATTCTACCGGTAGGGGAGCGCTTTCCCAAGGCAGTCTGGAGCAT
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 TGGGTCCGGGGGCGGGCTCAGGGGCGGGCTCAGGGGCGGGGCGGGCGGAAGTCTCTCCGAGGCGCGGCTTCTCGCAC
 GTTCAAAGCGCACGTCTGCGCGCTGTTCTCTCTCTCTCATCTCCGGGCTTTTCGACCTGCAGCCAAATAGGGATCG
 GCCATTGAACAGATGGATTGACACGAGGTTCTCCGGCGCTTGGGTGGAGAGGCTATTCCGCTATGACTGGGCAACAA
 GACAATCGGCTGCTCTGATGCGCGCTGTTCCGGCTGTCAGCGAGGGGCGCGGCTTCTTTGTCAAGACCGACCTGT
 CCGGTGCGCTGAATGAATCAGTACGAGCAGGACGCGGCTATCGTGGCTGGCCACGACGCGGCTTCTTGGCGAGCTGTG
 CTGACGCTTGTCACTGAAGCGGGAAGGAGTGGCTGCTATTGGGCGAAGTGCAGGGGCGAGATCTCTGTCTCATCTCACCT

TGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTCG
ACCACCAAGCGAAACATCGCATCGAGCGAGCAGTACTCGGATGGAAGCCGGTCTTGTCGATCAGGATGATCTGGACGAA
GAGCATCAGGGGCTCGCGCCAGCCGAACGTGTTCCGAGGCTCAAGGCGCGCATGCCGACGGCGATGATCTCGTCGTGAC
CCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAATAATGGCCGCTTTTCTGGATTTCATCGACTGTGGCCGGCTGGGTG
TGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGACCGCTTC
CTCGTGCTTTACGGTATCGCCGCTCCCGATTCCGAGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGGGGA
TCGATCCGTCTGTAAAGTCTGCAGAAATTGATGATCTATTAAACAATAAAGATGCCACTAAAAATGGAAGTTTTCTCTGT
CATACTTTGTTAAGAAGGGTGAGAACAGAGTACCTACATTTTGAATGGAAGGATTGGAGCTACGGGGGTGGGGGTGGGGT
GGGATTAGATAAATGCCTGCTCTTTACTGAAGGCTCTTTACTATTGCTTTATGATAATGTTTCATAGTTGGATATCATAA
TTTAAACAAGCAAAACCAAATTAAGGGCCAGCTCATTCTCCCACTCATGATCTATAGATCTATAGATCTCTCGTGGGAT
CATTGTTTTTCTCTTGATTCCCACTTTGTGGTTCTAAGTACTGTGGTTTCCAAATGTGTCAAGTTTCATAGCCTGAAGAAC
GAGATCAGCAGCCTCTGTTCCACATACACTTCATTCTCAGTATTGTTTTGCCAAGTTCTAATTCATCAGAAGCTGACTC
TAGATCTGGATCCGGCCAGCTAGGCCGTGACCTCGAGTGATCAGGTACCAAGGTCCTCGCTCTGTGTCGTTGAGCTCG
ACGACACAGGACACGCAATTAATTAAGGCCGGCCCGTACCCTCTAGTCAAGGCCTTAAGTGAGTCGTATTACGGACTGG
CCGTGCTTTTACAACGTCTGTGACTGGGAAAACCTGGCGTTACCCAACCTTAATGCGCTTGACGACATCCCCCTTTCGCC
AGCTGGCGTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGGCGCTTCG
TTGGTAATAAAGCCGCTTCGGCGGGCTTTTTTTT

FIGURE 3B (Continued)

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Annealing site	Sequence	Sequence after digestion
1	5' tgtgtcctctcttttggttgcttccaa... 3' 3' acacgaggagaaacccgaacgaaggt... 5'	5' tgtgtcctctcttttggttgcttccaa... 3' 3' tt... 5'
2	5' ctggttcttgtctggttggttgcccaa... 3' 3' gaccaagaacagaccgaaccgggtt... 5'	5' ctgggttcttgtctggttggttgcccaa... 3' 3' tt... 5'
3	5' ggtcctcgctctgtgtccggttgaa... 3' 3' ccaggagcgagacacaggaactt... 5'	5' ggtcctcgctctgtgtccggttgaa... 3' 3' tt... 5'
4	5' ttgtcggtgtcctgtgtcgtcgaa... 3' 3' aaacgcacaggacacagcagcgtt... 5'	5' ttgtcggtgtcctgtgtcgtcgaa... 3' 3' tt... 5'

FIGURE 4

[illegible]

Annealing site	Sequence	Sequence after digestion
1	5' AATgtgctcctctcttggcttCCGC 3' 3' Ttacacgaggagaaacccaacgaagg 5'	5' AA 3' Ttacacgaggagaaacccaacgaagg 5'
2	5' AActgggttcttctgtctggcttggCCCCGC 3' 3' Ttgaccaagaacagacccaacccggg 5'	5' AA 3' Ttgaccaagaacagacccaacccggg 5'
3	5' AAGgtcctcgcctctctgtgtccgttGAGCT 3' 3' Ttccaggagcggagacacaggccaac 5'	5' AA 3' Ttccaggagcggagacacaggccaac 5'
4	5' AAtttgcgtgctcctgtgtgtctGAGCT 3' 3' Ttaaacgcacaggacacacagcagc 5'	5' AA 3' Ttaaacgcacaggacacacagcagc 5'

FIGURE 5

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FIGURE 6

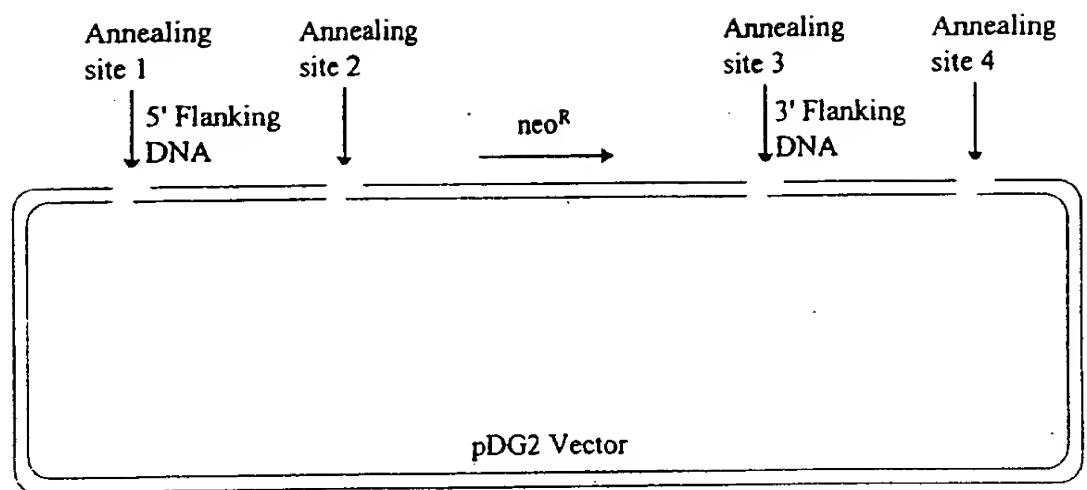
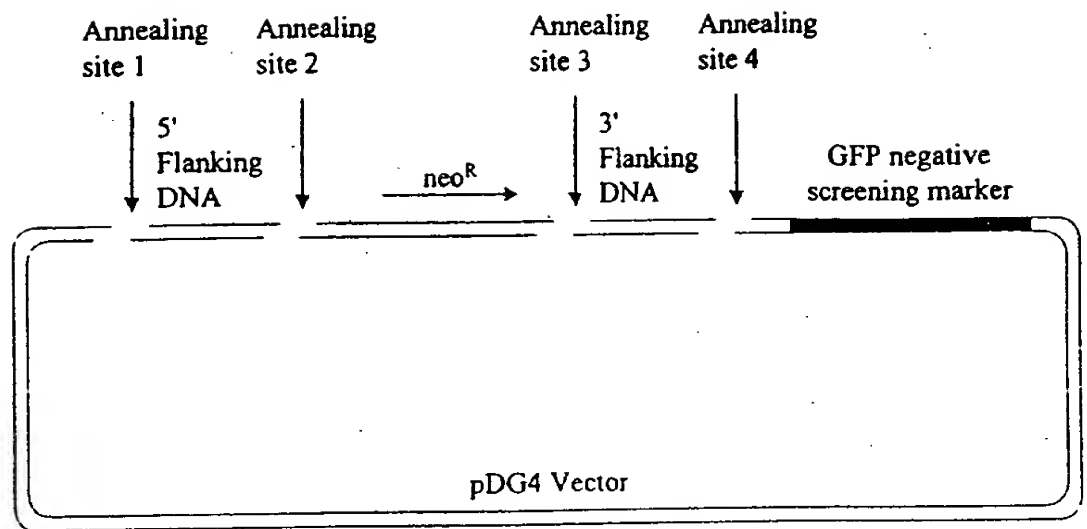


FIGURE 7



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GAATTCCAACCTCAGCTTGACGTGGGGCCTATTGAACTCAATTTGCTTGAAAACCTGCCAGGAAAGGCTG
AGAGCTGAACCCCTCCTTGGGACAGCTAAAGGGAGTCTTCACCATGGGTGAGGTGACAGCAGAGGAGGT
AGAAAAGTTCTTGGATTCAAATATTGGCTTTGCCAAAACAATACTATAACCTTCACTACCGGGGGAAGGTC
ATCTCAGACCTCCTCGGGGCCAAGGAGGCAGCTGTGGAATTCAGCAACTACCACGATGTGAACAGCGTAG
AGGAGAGTGAGATCATCTTTGACCTCCTGCGGGACGTTTCAAGGAACTTACAGGCTGAGAAATGCACATT
CAATGTCTATGAAGAAGCTCTGCTTCTCCTGCGGGCTGACCGAGTGAGCCTGTTTATGTACAGGACCCGC
AACGGCATCGCCGAGCTGGCCACTAGGCTCTTCAATGTCCACAAGGATGCTGTGCTAGAGGACTGCTTGG
TGATGCCCCGACTCCGAGATTGTCTTCCCTCTGGACATGGGTGTCTGTTGGGCCACGTGCGACACTCCAAAA
GATTGCCAATGTCCCAACACAGAAGAGGATGAGCATTTCTGTGACTTCGTGGACAATCTCACAGAATAT
CAGACCAAGAACATCCTGGCTTCCCCCATCATGAATGGGAAGGATGTGGTAGCCATAATCATGGCTGTGA
ATAAAATAGATGAACCCCACTTACCAAGAGAGATGAAGAGATTCTTCTCAAGTACCTCAACTTTGTGAA
CCTGATCATGAAGGTATTCCACCTGAGCTACCTGCACAACCTGTGAGACTCGTCGCGGGCCAGATATTGCTG
TGGTCTGGGAGCAAGGTCTTTGAGGAGCTCACGGATATAGAGAGGCAGTTCCACAAGGCCCTGTACACGG
TCCGGGCTTTCTCAACTGTGACAGATACTCCGTAGGACTCTTAGACATGACCAAAACAGAAGGAATTTT
TGATGTGTGGCCAGTTCTGATGGGCGAGGCTCCAGCTTACTCTGGTCCCAGGACTCCAGACGGAAGGGAA
ATTAACCTTCTACAAGGTCATTGACTACATCCTGCACGGCAAAGAAGACATCAAAGTCATCCCGAACCCAC
CCGCTGACCACTGGGCTCTAGTGAGTGGTCTACCCCTTACGTGGCTCAAATGGTCTGATCTGCAATAT
AATGAATGCGCCTGCAGAGGACTTTTTTGAATTCAGAAAGAGCCTCTGGATGAGTCTGGGTGGATGATT
AAAAATGTACTCTCCATGCCCCTCGTCAACAAGGAAGAGATCGTCGGCGTGGCCACATTTTACAACC
GCAAAGATGGGAAGCCCTTCGACGATATGGACGAGACCCCTCATGGAGTCTTTGACTCAGTTTCTGGGATG
GTCAGTCTTAAACCTGACACCTACGAGTCCATGAACAAGCTCGAGAACAGGAAGGATATCTTCCAGGAC
ATCGTGAATATACGTGAAGTGTGATAACGAAGAAATCCAGAAGATCTTGAACAGGAGGTGTACG
GCAAAGAGCCGTGGGAATGCGAGGAGGAGGAGCTGGCTGAGATCCTGCAAAGAGAACTTCCAGACGCGGA
GTCATACGAAATCAACAAGTTCCACTTCAGCGACCTGCCACTCACGGAGCTGGAGCTGGTGAAGTGCGGC
ATCCAGATGTACTACGAGCTCAGAGTGTGGGACAAGTTCCACATCCCGAAGAGGCCCTGGTGCCTTCA
TGTATTGCTAAGCAAAGGCTACCGGAGAATCACTTACCACAACCTGGCGGCATGGCTTCAACGTGGGGCA
GACCATGTTCTCCTTGTGTTGACAGGAAAGCTGAAACGGTACTTCACTGATCTAGAGGCCTTGGCCATG
GTCATGCTGCCTTCTGTGATGACATCGACCACAGAGGCACGAACAACCTTACCAGATGAAATCACAGA
ACCCCTTGGCCAAAGCTCCATGGGTCTTCCATCTTGGAAAGGCATCATTGAGTTTGGCAAAACACTCCT
GAGAGATGAGAGCCTGAATATCTTCCAGAACCTGAATCGCCGGCAGCATGAGCACGCGATCCACATGATG
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ATCAGTCAAAGACATATGAGAGTACCCAGGAGTGGACCCAGTACATGATGCTGGAGCAGACACGGAAGGA
AATTGTGATGGCCATGATGATGACCGCCTGTGATCTCTCAGCCATCACCAAACCTGGGAGGTACAGAGC
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ATCCCATTCCTATGATGGACAGAAACAAGGCGGATGAGCTCCCCAAGCTTCA
AGTGGGCTTCATCGACTTTGTGTGCACTTTTGTCTATAAGGAGTTCTCCGATTTTCATGAGGAGATTACA
CCCATGCTGGATGGGATCACTAACAACCGCAAGGAATGGAAGGCGCTGGCTGATGAGTACGAAGCCAAGA
TGAAGGCCCTGGAGGAGGAGAAGCAGAAGCAGCAGGCAGCCAAGCAAGCTGCTTCCGGGAACCAGCCAGG
AGGGAACCCACTCCAGGGTGCACCTGCATCTAAGTCTGTGTCATCCAGTAGCTGACTGCACTGCAGCAG
GGCACAGCCCTCAGGAAGGAGGAGGTACCCCTGGCACTGGACAGTTAAAGAACCAGGAGCTTGGAAAGTGG
TGGCAAAACACAGCAGGCATCTATATCATCAAATGGTCTTAGACATTGGTTCTGTTCTGTTCTGTTCTGTT
CTGTTCTGTTCTGTTCTGTTCTGTTCTGTTCTGTTCTGTTCTGTTCTGTTCTGTTCTGTTCTGTTCTGTT
CAGCTCTGGCTGGCTGGAATCTCTATGTAGACTGGGCTGGCTCAAACCTCACAGGCCTCCACCTGCCT
CTGTGTCCTGAGTTCTGAGTTAATAAGCAAGCACCATCACACAGGGAAGTTAGAGATTGTGTTTAAATCTA
AAAAGTCTATCGAGTCTAGCCTAATATTCTAGACTTCATATACTGACTTGATAATTTTTTGTCTTATAA
TGCTTGAATTTCTTATAAGCTTTTTAACTTAGTGTATTATTATAAAAGTGTTCGCTAATTTCCAAAAGT
ACAGAATTATACGGAATTC (SEQ ID NO:19)

Figure 8A

FIG. 8B

Targeting Vector (5' arm; 200 bp flanking neo insert):

GGAGGTAGAAAAGTTCCTGGATTCAAATATTGGCTTTGCCAAACAGTACTATAACTTTCACTA
CCGGGGGAAGGTCATCTCAGACCTCCTCGGGGCCAAGGAGGCAGCCGTGGACTTCAGCAA
CTACCACGATGTGAACAGCGTAGAGGAGAGTGAGATCATCTTTGACCTCCTGCGGGACGTT
CAGGAGAACTTACAGG (SEQ ID NO:20)

Targeting Vector (3' arm; 200 bp flanking neo insert):

TGTCGTGGGGCCACGTCGCACACTCCAAAAAGATTGCCAATGTCCCCAACACAGAAGAGGTACG
CTCTCCCCATAAGATGGATGTACGAATGCACTGTTCCCTGGGGTTCTGGAGTCCAAGCTGGCT
GGGCTGTTGCTGGCCACCAAACCTGGGCTAGTCATAGCACGATACCACTCTCTATTTATAAAAA
ATACTTAGAA (SEQ ID NO: 21)

FIG. 8B

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